

Environmentalism and Citizenship in Schools Participating in the Eco-Schools Program: Primary School Students' Conceptions about Social and Environmental Issues¹

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Abstract

This work focuses on the ideas of third cycle elementary school students on the world's social and environmental problems. This research aims at testing whether the Eco-School educational program offers a local-global perspective on these issues. The research took a qualitative approach; questionnaires including open-ended questions were administered and interviews and focus groups were conducted in selected centres. The analysis of the results revealed some significant aspects that could be useful for the improvement of this type of educational experience. It highlights the need to work on and understand the environmental realities from the 'glocal' perspective.

Key words: *Eco-School; elementary education; environmental education; global citizenship; students' ideas.*

Introduction

In the current context of social, economic and ecological crisis in which we find ourselves at a global level, it is necessary to rethink new forms from which consistent responses to social and environmental issues affecting the planet from a local

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perspective would be made, in order to have a global impact. The expression ‘think globally, act locally’ has been used throughout the 20th and 21st centuries in different areas, including environmentalism. A long time ago Geddes (1915) presented the idea, although it was originally related to urban planning, referring to the local character not being a mere accidental curiosity that can only be achieved through adequate knowledge and treatment of the entire environment. He took into consideration the essential life and characteristics of the place.

Globalization and the growing problems worldwide demand a reformulation that would address these issues not only at the local level, but would also concern the citizens of the world, with a new look to the future, from a global perspective. This idea should be put into practice throughout the school and through the process of teaching/learning as a tool for social transformation (Moreno-Fernández, 2013). As García Perez (2009) points out, the world’s serious social and environmental problems are issues only understood from the global dimension, and the transmission of knowledge in schools is far from approaching the serious problems of today’s society since they do not occupy the central role in the curriculum. According to Moreno-Fernández and García Perez (2013), environmental issues require analysis and intervention strategies on a more complex scale that would combine local and global perspectives. Such restructuring would mean that both views unite into a “glocal” model (Novo & Murga, 2010), a concept already used by some authors facing the need for a new approach.

More current terms, such as planetary citizenship or global citizenship, support this idea and, through environmental education, seek to respond to the current challenge and contribute to the construction of a more complex and systemic society, but also, increasingly sustainable (Novo & Murga, 2010). These problems arise in local areas, but most of the time, outsource their effects so that they acquire global reach. In the same way, in the reverse case, global decisions reach the corners of the planet producing strong impacts (García Pérez, 2009; Moreno-Fernández, 2013; Moreno-Fernández & Bianchini, 2014; Novo & Murga, 2010).

In this situation, the human being, as a citizen, has the responsibility to work in local areas with a global and planetary perspective, and environmental education is presented as one of the fundamental instruments for promoting and permanently encouraging awareness of planetary citizenship (Moreno-Fernández & García Perez, 2013). Civic education, education for development, or multiculturalism, among others, are also instruments used to develop the local-global relation that we advocate. To assume the idea of planetary citizenship means to understand the problems faced by humanity from the proposed “glocal” perspective, teaching these citizens to be aware of social and environmental realities.

It is important to highlight the need for the students to take on an active role in making decisions, participation and involvement in school, which can encourage a greater awareness of actions in their own school environment and outside their schools (Moreno-Fernández, 2013). In this way, it is intended for them to reach capabilities needed to respond, on a planetary scale, to certain situations that negatively affect

the planet. A rethinking of the treatment of different topics, in which the social and ecological aspects play a crucial role, would be necessary to achieve these objectives. Not only would it be fundamental to adjust the curriculum, but also the teaching methodologies, which should be focused on the community action and participation (Garcia Perez, 2009).

Learning should be a global process, in which the individual constructs a meaning of reality (Zabala, 1989). It is therefore necessary to overcome the compartmentalization of knowledge to address it systemically (Mesa et al., 2003), so it would be possible to consider environmental education according to the needs of the current social and environmental problems.

This research delves into the question whether the students participating in the Eco-School program establish links with the environment using the resources offered by the medium in such a way that the school is presented as an environment in which learning through immersion promotes the acquisition of skills, coherent stimuli and real motivations (Tonucci, 1993; 2009). This immersion is a determining factor in the promotion of attitudes of respect and commitment to the environment.

The current work is based on different studies on the contribution of environmental education to education for planetary citizenship (Bianchini & Sarti da Silva, 2012; Moreno-Fernández & Bianchini, 2014; Moreno-Crespo & Moreno-Fernández, 2015; Novo & Murga, 2010). Specifically, it is based on the idea of creating a vision integrating the problems of the world into the local-global interaction. It is this perspective from which we feel it is necessary to address environmental problems.

Eco-School Program: Environmentalism and Citizenship in Schools

The best way to bring environmental education closer to the school centers is through participation and commitment of the entire educational community, relating it to the environmental problems (Martin-Bermúdez & López-Noguero, 2013). Increasingly, there are more and more environmental experiences that are being put into practice in national and international educational institutions. These complementary programs on environmental education, education for citizenship and other related subjects help to foster citizen participation (Moreno-Fernández & Garcia Pérez, 2013) in the student body. At the same time, the curriculum greening has meant the centers acquired competences at the level of global thinking and promotion of responsibility, commitment and action of the educational community towards the development of a few features of environmental identity (Geli et al., 2006).

An example is the Eco-School, an initiative at the international level, whose common methodology aims at promoting attitudes and skills of commitment and responsibility to the environment and its problems among its students. Being a promoter of ideas, the aim of which is to facilitate citizen participation in the sustainable development of the town, is a point of departure and promotion of environmental education in school and community settings (Martin-Bermúdez & López-Noguero, 2013).

There are currently 450 Eco-Schools in Spain and a total of 38,000 centers at international level, in 49 countries. In Spain, they have been developed in partnership with The Spanish Association for Environmental Education and Consumers (ADEAC), coordinated by the Foundation for Environmental Education (FEE) and are aimed at the early, primary and secondary stages of education, involving the local community and promoting community development. Participation in this educational experience involves a series of common steps that are presented in Table 1.

Table 1

Stages of the Eco-School educational program (Source: Asociación de Educación Ambiental y del Consumidor (ADEAC))

Environmental Committee	This Environmental Committee is composed of representatives of the educational community and is elected autonomously and democratically.
Environmental Audit	The environmental audit assesses the needs and environmental priorities of the Center and its surroundings in order to incorporate them in the development of the future action plans.
Plan of Action	The action plan is prepared annually by the Environmental Committee. It addresses some of the basic themes (water, waste, energy, action on the environment) related to the school curriculum. Then, goals, targets and dates for initiatives, focused on the improvement of the Centre and the environment, are established.
Code of Conduct	The code of conduct establishes the actions and behaviors that the educational community will obey. It relates to the objectives of the action plan.
Control and Evaluation	Evaluates the degree of fulfillment of the plan of action through a jury formed by ADEAC and representatives of the local and regional authorities participating in the program.
Information and Communication	Sets a policy of communication of the results to be known by the school and local community in general.
Green Flag Award	Award granted to centers valued by developing an environmental policy in a satisfactory manner.

Investigations of these educational experiences are focused on analyzing whether there is a coherent integration of environmental education in schools. Deepening these aspects allows for determining limitations and potentials of such proposals.

Objectives and Research Methodology

The origin of this research stems from the interest in knowing if students understand environmental issues not only from the local, but also from the global or a glocal perspective. It is necessary to analyze this aspect to corroborate whether this fact is crucial when it comes to acting in a respectful and committed way to the surroundings and the environment in general. In our opinion, studies and research in the context of the Eco-School program (Bianchini & Sarti da Silva, 2012; Conde, 2004; López & Gutiérrez, 2013; Martín-Bermúdez & López-Noguero, 2013; Moreno-Fernández, 2013; Moreno-Fernández & García Pérez, 2013) are scarce and therefore further work in this line is presented as something fundamental in the field of integration of environmental education in schools.

As a starting point, we rely on previous studies on the ideas of students (Delicacies, Alejo, & Slisko, 2011; Mora & Herrera, 2009; Sánchez, 2001). In this sense, this research focuses on exploring the concepts acquired by students participating in the Eco-School educational program, to check if they favor a local-global vision of the problems of the world and how this influences the commitment to the environment. This educational program takes a holistic approach and a participatory one, involving students, teachers and the entire educational and local community (Moreno-Fernández, 2013).

The overall objective of the study is to check if the Eco-School educational program promotes a local-global vision of social and environmental problems in students of elementary schools. This objective seeks to determine whether this vision influences the commitment of students to their surroundings and to the environment. This arises as a future line of research in order to gain insight into the extent to which the environment is a significant issue in the teaching process.

In addition, specific objectives relating to some aspects that are considered in the program, such as water, energy, waste, and effect on the environment have been established. The specific objectives of this research are:

- Check if students know the relationship between the problems of the water at the global level and the use we make of this resource at the local level.
- Analyze if students are able to establish relationships between energy consumption and environmental issues.
- Determine to what extent students understand and act in relation to the problems associated with waste.
- Check which actions are known and carried out by students in favor of preserving the environment and improving the quality of life.
- Detect whether this educational program promotes the formation of a more engaged citizenry.

Using these approaches, research has focused on understanding the complexity of various social and environmental problems in their local-global dimension.

Methodology

The research participants were 73 graduate students of primary school (10-12 years of age) from two public schools located in two provinces of Andalusia (Seville and Huelva) in southern Spain. These schools had joined the Eco-School educational program. In order to protect the privacy of research participants, the original data on schools are only available to the authors. The research sample corresponds to a non-probability sampling rate for causal approach (Aliaga, 2000). The selection of schools was based on the following criteria: the schools had easy access, they were willing to participate, they facilitated the presence of the researcher and provided the ease of completing the work schedule. For the collection of the data questionnaires were administered, and interviews and focus groups were conducted.

The questionnaire consisted of eight open-ended questions which revealed the students' conceptions in terms of environmental education, citizen participation, and the relationship between the local and the global. Thus, the issues that the students addressed were as follows:

1. The school program in which you participate is important for you and your school. a) Tell us what the program was like during the previous year; b) What do you think you learned from that program?; c) What did you learn in the program that is still useful in your daily life?
2. Water scarcity in Andalusia is, for the first time in the last ten years, one of the most important environmental problems of the Andalusians. To solve this problem, many villages have agreed and have taken steps such as cutting down water supply from 8 p.m. to 8 a.m. However, other villages refuse to take this measure, not being worried about this problem. We cannot forget that water is a basic resource which humans are dependent on, as well as plants and animals. How do you think a lack of water would affect the place where you live?
3. Do you think this problem of lack of water would affect only your local community or is it a problem that affects the entire Earth? Why?
4. How would you relate a lack of water where you live to a lack of water on the planet Earth?
5. What would you propose to solve a lack of water in your town?
6. And what would you propose to address a lack of water on Earth?
7. Whose responsibility do you think the environmental problems, such as water usage, are? How should governments react? How do companies manage the usage of water? Is it the responsibility of all people? Why?
8. Tell us which things you do and participate in to help solve the problems of the place where you live (your city, your town, your neighborhood...)

To complete the questionnaire, interviews and focus groups were conducted (Barbour, 2013; Kvale, 2011), as we believe they are essential when trying to understand the meanings attributed to the main activities and social dynamics that they are part of.

These instruments allow us also to delve into particular conceptions and experiences that students have had with their neighbours. In this sense, we have considered the texts generated from interviews and focus groups as narratives from which we could understand social and environmental issues and their relation to the local and global level: as a group of concrete subjects in a particular place and time. These narratives arise in the interaction between researchers and participants and represent a form of thought and expression of a certain way of looking at the world.

All interviews and focus groups were conducted from a previously prepared script, so that the techniques had a semi-structured character. The use of multiple instruments enabled us a wide range of data and allowed triangulation, giving them greater validity and reliability.

The objective of the interviews was to gather information on student variables that make up the categories of study. Therefore, the questions raised were the following ones:

1. Is this the first year that you are taking part in Eco-School?
2. Have you ever taken part in some other program before?
3. What has led you to take part in the program?
4. What function do you have in the startup and development of this program?
5. What activities do you carry out?
6. Are you involved in all the activities that are being carried out? Tell me how.
7. Do you think that you learn more when you are actively engaged?
8. Do you think that this engagement makes you a more active and responsible citizen?
9. How do you think environmental education is favored throughout the program? And civic education?
10. Do you think that they are related to problematic social and environmental issues connected to the concrete needs of the neighborhood in which you live?
11. Do you think that the current social and environmental problems (climate change, desertification, loss of species, poverty, excessive consumption...) are the problems that affect you as well?
12. Do you consider yourself to be a part of the world community and relate to the social and environmental problems by acting on the local level?
13. Is it difficult for you to connect local problems with the global ones?

As for the focus groups, work with them included some variants of the paper "The solidarity, a civic duty", which is also included in the didactic materials elaborated by the Drug Addiction Foundation (DAF) and the Benefit Society Box Madrid (2007): *Citizens: Development of Prosocial Values*. The questions that guided the work of the focus groups were:

1. What types of disasters happen in the world most frequently?
2. Do you think that these disasters happen due to the processes going on in the nature or due to human actions?
3. Would you relate these disasters to environmental or social problems?
4. When a disaster occurs, people normally adopt one of these three attitudes: nonchalance, impact or solidarity. Which of these three attitudes seems to you to be the most effective one? Which of the three attitudes seems to you to be the most frequent one?
5. Do you think that helping people in areas hit by these disasters is a duty of the international community, of the country or place in which it occurred, or of all the citizens independently of the place of the world in which they live?

All the collected data were grouped into different thematic blocks for the categories of study: data identifying the participants, perceptions about the current social and

environmental issues (environmental education), their position as citizens (local citizenship/world), as well as their participation in issues related to improving the immediate environment. Categories were then divided into three subcategories, resulting in a scale of progression from the simple knowledge (syncretic worldview) to the approximate desired knowledge (approach to a systemic vision of the world) (see Table 2).

Table 2
Categories and subcategories of research analysis

	Subcategories of analysis		
	Syncretic worldview	ANALYTICAL WORLDVIEW	A SYSTEMIC APPROACH TO WORLDVIEW
Category 1: Presence and treatment of social and environmental problems	Identification of environmental references in the identified dimensions.	Identification of environmental references in the dimensions related to connection problems.	Demonstrations aimed at solving social and environmental problems.
Category 2: Presence and treatment of citizens' problems	Identification of civic references in the identified dimensions.	Identification of references in civic dimensions related to connection problems.	Demonstrations aimed at solving social problems requiring citizen involvement.
Category 3: Participation	References to the mechanisms of citizen participation.	Conviction to achieve critical citizenship.	Commitment to solving social and / or environmental problems.
Category 4: Global dimension (glocal relationship)	References to the Planetary Citizenship Education.	Assessment of the social and environmental conditions.	Commitment to global public awareness (citizens of the world, local-global relationship).

Data analysis was performed through a process of thematic coding (Angrosino, 2012; Flick, 2009) applied to transcripts obtained after carrying out the methods of data collection. Data were processed with Atlas.ti qualitative analysis software (version 6.2).

Results and Discussion

We have classified the results through a thematic categorization, grouping statements according to the function of their features and content, and according to the objectives, general and specific, set by the research. The present research aims at demonstrating if the Eco-School program promotes a local-global vision of the social and environmental problems. To do this, we analyzed the perceptions of the student participants in relation to the effect that local social and environmental problems have at the global level.

A large majority of the participants understand that the actions that arise from the local issues somehow affect the global issues. On the other hand, around 30% do not recognize, do not know or do not understand this cause-effect relation, while very few indicate that these issues do not affect the rest of the planet. The data collected in the research indicate that student participants know and are able to establish a

relationship between local action and global effect. Despite this, the results denote a lack of in-depth understanding of the interactions and processes that encompass the social and environmental problems.

They indicate that insufficient and inappropriate care for the environment (plants and animals), excessive consumption and waste production, energy waste, the increase in transportation, a lack of recycling, reuse and saving of resources and local pollution, among others, directly affect global pollution (*"...the pollution spreads through the air and reaches other parts of the world..."*); they cause an increase in global warming and the greenhouse effect (*"...we spend a lot of electricity and that is related to global problems..."*); cause health problems for the inhabitants of the planet; cause death and extinction of numerous animal and plant species in the world; cause the melting of the Poles; diminish the quality of life and have an ill effect on the environment in general.

Among the opinions, they indicated that *"...once it is contaminated, everything is related"* or *"If it is contaminated, the global warming and the greenhouse effect begin, many plants die, many animals die and everything that follows..."* or *"... even the smallest town that respects the planet is already doing something..."*

When establishing the cycles or chains of relationships between the activities those participants carry out at the local level and their effect on a global scale, we find they are able to identify the main beneficial effects of the actions carried out within the Eco-School program. They emphasize recycling, which means reuse, less energy consumption, less pollution, less waste of food, waste reduction; they recommend planting or creation of a garden to avoid contamination; eating healthy and natural food; reducing purchasing or helping the planet due to the oxygen provided by the plants; saving of resources, noting that lower consumption indicates lower pollution, climate change, greenhouse effect, etc. At the same time, they are aware of the consequences of these actions in time (*"...I think we save to avoid contaminating so much and if we do pollute, we would also pollute plants that then the animals eat and also die, and then they get eaten and ultimately all animals and plants die and we do, too, with them"*).

The results also indicate that those who pointed out that local problems do not have a global effect based their views on the vision of their town as a place respectful to the environment, which is not contaminated and where environmentally beneficial actions are performed.

The Relationship between Global Problems and the Usage of a Natural Resource at the Local Level

In general, students participating in the research understand the importance of water as a resource when we look at its usage in our lives, as well as some problems concerning water around the world. Yet, it is noteworthy that most of the students have misconceptions regarding the exhaustion of water resources (*"There will be no more water"* or *"It will be spent"*). Despite the fact that sometimes they do not connect

exactly/correctly the cause and the consequences of water usage, they do know what the main problems associated with water as a resource on the local and global scale are, including the misuse or waste, the increase in demand, drought and the death of species, variation in water temperature, pollution, wars for water, poor distribution and the consequent shortage of this resource in some parts of the world (see Network 1). With regard to its importance as a resource, a daily task highlights the need for responsible use for the preservation of life, health and the improvement of the planet and everything that entails its daily usage, such as the functioning of the food chain or the existence of numerous species.

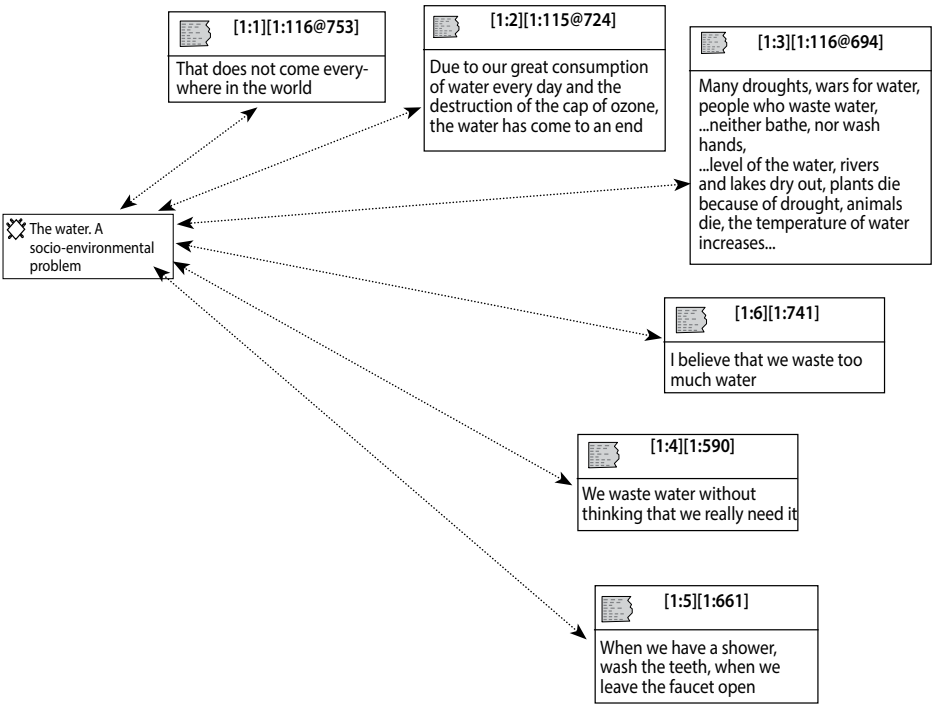


Figure 1. Students' conceptions of the problems of water around the world (Source: the author's own elaboration based on Atlas.ti qualitative software)

When we refer to energy, the students are found to be conscious of energy saving in the respective centers, implementing various cost-saving measures. Only some understand that energy saving prevents the increase in pollution from factories and power stations which produce this energy. In addition, they point to a decrease in energy expenditure as an action of preventing environmental deterioration, of avoiding the increase of global warming and the greenhouse effect and its consequential harm to the planet and its inhabitants. They are able to establish a relationship between actions such as recycling and reuse, and decreased energy expenditure. In parallel, they point out light pollution as one of the problems of the urban environment.

Students' Actions Aimed at Conserving Their Environment

Perceptions about what the environment is are diverse, although there is a complementarity among the resulting ideas. A group of students understand, to some extent, what the environment is and why its conservation is of vital importance. These ideas are directly related to the ideas that they have on the environment. They understand that the environment is everything that surrounds human beings, nature, rural and urban, and that it is essential for life, for human beings, plants and animals, for health, for being able to breathe, to prevent the extinction of species and to feed us, among other reasons. The vast majority of the sample turns out to be aware of the major problems that affect the environment, including pollution, the death of species, the waste/garbage, noise and visual pollution, transport or extinction and disappearance of species.

When we look at the perception that students possess of their environment, there are differences. Those students, whose center is located in an urban environment, perceive that their environment is not good, it is destroyed, neglected, polluted and is used many times as a "landfill". However, the students who develop their educational activity in the countryside have the vision of a green, beautiful, natural, clean environment, with many plants, inhabitable by many living beings and suitable for outdoor activities.

In practice, through the Eco-School program, actions in both centers are numerous and varied. These include recycling, reduction and reuse (recycling bins, Christmas ornaments, reuse of bricks, reuse of foils, caps recycling,...), production of soap from used oils, organic gardens creation, making compost, planting and reforestation, taking measures to save electricity and water in the Centre and decreasing the waste of resources, creation of the figure of the "green vigilante" or "green patrol", elimination of the usage of polluting materials, breeding livestock, cleaning and waste collection in the Centre, making recycled paper, etc.

The Problems Associated with Waste at the 'Glocal' Level

When we consider the issue of waste, students generally indicate that it is one of the main problems affecting their surroundings, while others include transport, the disappearance of species and poverty. In this sense, they know the consequences of such problems, such as the destruction of nature, disease, the condition of animal and plant species and water, global warming, destruction of the ozone layer, the problems of landfills and the pollution of the planet in general, and are able to provide specific solutions to this global problem. Some of the solutions proposed by the participants are recycling and sorting of waste, the reuse of objects, the decrease in the use of containers, limited consumption appropriate to the human needs, applying the 3R rule (reduce, recycle and reuse), a reduction in consumption and a better use of what they consume.

The results indicate that the students are familiar with the topic of waste, being one of the main themes worked on within the Eco-School program, even though

sometimes they are not able to associate specific actions, such as the reduction of waste at home, with possible solutions to such situations. Yet, they are able to identify it as a major environmental problem.

Education for Participation in the Local Environment with a Global Perspective

Students understand the importance of participation, and the need to participate not only in specific actions within the programs analyzed, but also the environment through simple actions. We can deduce that a large majority of them believe that participation through simple actions can mean changes, and therefore have power in their hand through actions that have been carried out through participation in Eco-School and this is reflected in the following suggestions for program improvements given by students: *“...Eco-School - more hours, because the teachers do not let us ... maybe, for example, this trimester we have not had any Eco-School meetings. And every month, we should because, I do not know, I should help at least in the center or in the village...”* or *“...many people in the middle who are not aware, should inform more other students (...) what about assemblies, with more people, you know what I want to say? There would be more people that we could report to.”*

Also, participation in this program has helped them acquire civic attitudes which they say favor improvements in the environment: *“...each time you throw away trash try to recycle; whenever I brush my teeth I close the tap; rather than bathe I take a shower and I spend less water; always turn on the light when it's dark and not during the day...”* or *“... what is still useful to me is that I cannot leave the tap running, tell my parents when they do something wrong and that they have to turn it off; when my friends drop litter, I tell them to throw it away...”*

The program was positively valued because students understand that through it they are acquiring new knowledge that makes them think and be better citizens, which was reflected in responses such as *“...trying to bring what I can give and doing the right things right? Do not do them for their own sake and that's it...”*; *“...the truth is that I think more about the environment. As for nature, I think more about not contaminating it”*, or *“...Yes, because I am helping the planet...”*

If asked directly about whether they have heard of the idea of global citizenship, the answer is no, but if you ask them if they consider themselves to be part of the local community, citizens of their city, or citizens of the world, the answer changes considerably and in most cases they consider themselves to be part of the global community in which everyone must contribute. Thus we find answers as *‘I the world’* or *‘I consider myself to be a world citizen’*.

Conclusions

Through an assessment of the views collected and analyzed during research, it was found that students participating in the Eco-School program are able to understand and establish relations and interaction between the global and the local level when

they work on social and environmental problems in the educational context. Among the valued aspects we highlight the concerns of the participants for the social and environmental problems at local and global levels and the ability to establish and argue the cause-effect relations from the actions in the environment.

Frequently, school subjects related to the most urgent environmental problems are proposed as fundamental and unique, as some authors such as Tonucci (1993) indicate. The students who participated in the program are not only aware of the main environmental problems worldwide, but are also aware of the problems facing their close environment. The trend shows that the aspects included in this educational programs are chosen in a biased way and sometimes are limited, focusing on the “fundamental” issues and not on the set “glocal” perspective. As Novo and Murga (2010) highlighted, expectations regarding education should be based on a complex perception considering the local and global vision as complementary. The ideas about water waste, saving resources and environmental activities are fairly consistent and indicate a satisfactory level of knowledge in the majority of the participants in such matters. Regarding the investigated aspects not included directly in the programs, as is the local consumption, students show a lower capacity to identify this issue as an environmental problem.

In terms of the educational level in which we have worked, we found that students in primary education know the local issues better than the world issues and their actions are focused on the improvement of their environment. At this stage, environmental education is closely linked to their own immediate environment (López & Gutiérrez, 2013). This can cause, in a way, a shift away from the vision of an interconnected world, the one which is in continuous interaction and exchange. The research participants indicated that their daily actions have direct effects on the immediate environment, and although they know of the possible local effects worldwide, short or long term, they do not know how to articulate them and provide solutions for them.

With the data collected, we conclude that the Eco-School program encourages, to some extent, a local-global vision of social and environmental issues, but there are weaknesses in the students’ understanding regarding how these issues are related. Making the curriculum more green involves new forms of working and understanding the social and environmental actions in schools adapted to current realities and, in this sense, meeting these objectives arises as a priority. These considerations can be useful when analyzing the effectiveness of environmental programs that are integrated in school curricula. It would be necessary for the students, by using a close experience, to be able to internalize what they have learned and to put it into practice voluntarily and intentionally. Thus they would acquire an education in values of respect, cooperation and commitment, among others. Training environmentally-conscious citizens is a task which is far from being simple, and therefore it is fundamental to address the key aspects of this matter from the perspective that we propose in the presented research.

References

- Aliaga, F. (2000). *Bases epistemológicas y proceso de investigación Psicoeducativa*. Valencia: C. S. V. Barbour.
- Angrosino, M. (2012). *Etnografía y observación participante en Investigación Cualitativa*. Madrid: Morata
- Bianchini, D. M^a. (2012). Educação Ambiental e o trabalho com valores. In D. M^a. Bianchini, & M^a. B. Sarti da Silva (Eds.), *Educação ambiental e o trabalho com valores: reflexões, práticas e formação docente* (pp. 35-56). Brasil: Pedro y João Editores.
- Conde Nuñez, M. C. (2004). *Integración de la Educación Ambiental en los Centros Educativos. Ecocentros de Extremadura: análisis de una experiencia de Investigación-Acción*. (Doctoral thesis). Cáceres: Universidad de Extremadura.
- De Posada, J. M^a. (1999). Concepciones de los alumnos sobre el enlace químico antes, durante y después de la enseñanza formal. Problemas de aprendizaje. *Enseñanza de las Ciencias*, 17, 227-245.
- Drug Addiction Foundation (DAF) & Obra Social Caja Madrid (2007). *Ciudadanos: Desarrollo de valores Pro-sociales. Cuadernillo de 12 a 14 años*. Madrid: FAD & Obra Social Caja Madrid.
- Flick, U. (2009). *Introducción a la investigación cualitativa*. Madrid: Morata.
- García Pérez, F. F. (2009). Educar para la participación ciudadana. Un reto para la escuela del siglo XXI. *Investigación en la escuela*, 68, 5-10.
- Geddes, P. (1915). *Cities in Evolution*. London: Williams and Norgate.
- Geli, A. M^a., Junyent, M., Medir, R.M^a., & Padilla, F. (2006). *Ambientalització Curricular en l'ensenyament obligatori: una proposta de definició, caracterització i estratègies*. Barcelona: Monografies Universitàries 7, Departament de Medi Ambient i Habitatge.
- Kvale, S. (2011). *Las entrevistas en investigación cualitativa*. Madrid: Ediciones Morata.
- López, A., & Gutiérrez, J. (2013). Estudio comparativo del programa “Ecoescuelas” entre centros de educación primaria y educación secundaria. In J. C. Tójar (Ed.), *La formación de educadores ambientales a nivel de máster. Propuestas profesionales y trabajos de investigación* (pp. 243-260). Málaga: Aljibe.
- Manjares, J. A., Alejo, C. A., & Slisko, J. (2011). Ideas previas de estudiantes de bachillerato sobre el movimiento del planeta Tierra y su relación con la visión teleológica. *Latin-American Journal of Physics Education*, Vol. 5, 1, 225-231.
- Martín-Bermúdez, N., & López-Noguero, F. (2013). Ecoescuelas. Creando lazos entre la comunidad local y la comunidad educativa. *Aula de Innovación Educativa*, 220, 61-65.
- Mesa, M., Zúniga, N., Cabezudo, A., Hatcher, R., & Revilla, F. (2003). *Educar para la ciudadanía y la participación: de lo local a lo global. Guías didácticas de educación para el desarrollo*. Madrid: Centro de Investigación para la Paz.
- Mora, C., & Herrera, D. (2009). Una revisión sobre ideas previas del concepto de fuerza, *Lat. Am. J. Phys. Educ*, 3(1), 72-86.
- Moreno-Fernández, O. (2013). *Educación ambiental y educación para la ciudadanía desde una perspectiva planetaria. Estudio de experiencias educativas en Andalucía*. (Doctoral thesis). Sevilla: Universidad Pablo de Olavide.

- Moreno-Fernández, O., & García Pérez, F. F. (2013). Educar para la participación desde una perspectiva planetaria. Análisis de experiencias educativas en Andalucía. *Íber, Didáctica de las Ciencias Sociales, Geografía e Historia*, 74, 9-16.
- Moreno-Fernández, O., & Bianchini, D. M^a. (2014). Educar para una ciudadanía planetaria: Una perspectiva necesaria para entender la educación ambiental. *Global Education Magazine*, 8, 40-43.
- Moreno-Crespo, P. & Moreno-Fernández, O. (2015). Problemas socioambientales: concepciones del profesorado en formación inicial. *Andamios: revista de investigación social*, 29, 73-96.
- Novo, M., & Murga, M. A. (2010). Educación Ambiental y Ciudadanía Planetaria. *Rev. Eureka Enseñ. Divul. Cien*, 7, N° Extraordinario, 179-186.
- Sánchez Sánchez-Cañete, F. J. (2001). Ideas previas del alumnado acerca del ruido, *Didáctica de las ciencias experimentales y sociales*, 15, 135-152.
- Tonucci, F. (1993). Hacia una propuesta de educación ambiental coherente. *Aula de Innovación Educativa*, 12, 82-85.
- Tonucci, F. (2009). ¿Se puede enseñar la participación? ¿Se puede enseñar la democracia? *Investigación en la escuela*, 68, 11-24.
- Zabala, A. (1989). El enfoque globalizador. *Cuadernos de Pedagogía*, 168, 22-27.

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Zaštita okoliša i građanstvo u školama koje sudjeluju u programu Eko-škola: Predodžbe učenika osnovne škole o društvenim i ekološkim problemima¹

Sažetak

Ovaj rad temelji se na predodžbama učenika koji pohađaju treći ciklus osnovne škole o društvenim i ekološkim problemima i problemima zaštite okoliša u svijetu. Cilj je ovog istraživanja ispitati pruža li zaista obrazovni program Eko-škole lokalno-globalnu perspektivu o tim problemima. U istraživanju se koristio kvalitativan pristup; primijenjeni su upitnici koji su sadržavali pitanja otvorenog tipa, a provedeni su i intervjui i fokus grupe u odabranim centrima. Analiza rezultata pokazala je neke važne aspekte koji bi mogli biti korisni za poboljšanje takvog tipa obrazovanja. Analiza također naglašava nastojanje rada na razumijevanju ekološke stvarnosti iz globalne perspektive.

Ključne riječi: obrazovanje u području zaštite okoliša; predodžbe učenika; Eko-škola; osnovnoškolsko obrazovanje; svjetsko građanstvo.

Uvod

U suvremenom kontekstu društvene, ekonomske i ekološke krize u kojoj se nalazimo na svjetskoj razini neophodno je pronaći nove načine kojima bi se na lokalnoj razini moglo dosljedno odgovarati na društvene i ekološke probleme koji utječu na planet, kako bi oni mogli imati globalni učinak. Izraz „razmišljaj globalno, djeluj lokalno“ koristio se tijekom prošloga, a koristi se i u ovom stoljeću, i to u različitim područjima, uključujući i zaštitu okoliša. Još daleke 1915. godine Geddes je predstavio svoju ideju, koja se prvobitno odnosila na urbanističko planiranje.

¹ Ovaj rad djelomično je rezultat Projekta I + D + i, pod oznakom EDU2011-23213, financiran od Ministarstva prosvjete i znanosti i FEDER fondova, pod nazivom „Strategije obrazovanja učitelja za poučavanje građanskog odgoja“, koji je trajao od 1. siječnja 2012. do 31. prosinca 2014. godine.

On je smatrao da lokalni karakter nije samo slučajni interes koji se može ostvariti adekvatnim znanjem i postupanjem prema cjelokupnoj okolini. On je uzeo u obzir samu bit života i karakteristike mjesta.

Globalizacija i rastući problemi širom svijeta zahtijevaju novu formulaciju koja bi uzela u obzir te probleme ne samo na lokalnoj razini nego bi također uključivala i građane svijeta, s novim pogledom na budućnost iz globalne perspektive. Tu je ideju moguće provesti u praksu posredstvom škole i procesa učenja i poučavanja koji bi bili svojevrsni alati za transformaciju društva (Moreno-Fernández, 2013). Kako ističe García Perez (2009), ozbiljni društveni i ekološki problemi svijeta problemi su koji se mogu razumjeti samo iz globalne perspektive, a prijenos znanja u školama daleko je od pristupa ozbiljnim problemima suvremenog društva, jer oni ne zauzimaju središnje mjesto u kurikulumu. Kako smatraju Moreno-Fernández i García Perez (2013), ekološki problemi i problemi zaštite okoliša zahtijevaju analizu i razrađene strategije intervencije u puno kompleksnijim razmjerima, a te bi strategije kombinirale i lokalnu i globalnu perspektivu. Takvo bi restrukturiranje značilo da se oba pogleda sjedinjuju u „glokalni“ model (Novo i Murga, 2010), što je pojam kojim se već koriste mnogi autori suočeni s potrebom novog pristupa.

Noviji termini, kao što su planetarno građanstvo ili svjetsko građanstvo, idu u prilog toj ideji te putem ekološkog obrazovanja traže načine kako bi se moglo odgovoriti na suvremene izazove i doprinijeti izgradnji složenijeg i sustavnijeg društva koje je istodobno sve više i više održivo (Novo i Murga, 2010). Ti problemi javljaju se u lokalnim područjima, no njihov utjecaj uglavnom nadilazi granice tih područja, pa tako poprimaju globalne razmjere. Na isti način, no u suprotnom smjeru, odluke na svjetskoj razini imaju jak utjecaj i na najmanja mjesta na planetu (García Pérez, 2009; Moreno-Fernández, 2013; Moreno-Fernández i Bianchini, 2014; Novo i Murga, 2010).

U toj situaciji ljudsko biće, kao građanin, ima odgovornost raditi u lokalnim područjima uzimajući u obzir i globalnu i planetarnu perspektivu, a ekološko obrazovanje prikazuje se kao jedan od temeljnih instrumenata za stalno promicanje i poticanje svijesti o planetarnom građanstvu (Moreno-Fernández i García Perez, 2013). Građanski odgoj, obrazovanje za razvoj ili multikulturalizam, između ostalog, također su instrumenti koji se koriste za razvijanje lokalno-globalnog pristupa koji zastupamo. Kako bi se prihvatila ideja o planetarnom građanstvu, potrebno je razumjeti probleme s kojima se čovječanstvo suočava, i to iz predložene „glokalne“ perspektive, poučavajući te građane da budu svjesni društvene i ekološke realnosti.

Važno je naglasiti potrebu da učenici preuzmu aktivnu ulogu u donošenju odluka, sudjelovanju i angažmanu u školi i njezinim aktivnostima, što može potaknuti veću svijest o aktivnostima koje se odvijaju unutar školskog okruženja i izvan njega (Moreno-Fernández, 2013). Na taj način kod učenika pokušavaju razviti sposobnosti potrebne kako bi se odgovorilo, na planetarnoj razini, na određene situacije koje negativno utječu na planet. Potrebno je ponovno razraditi način na koji će se pristupati različitim temama u kojima društveni i ekološki aspekti imaju ključnu

ulogu, kako bi se postigli ti ciljevi. Ne samo da je neophodno prilagoditi kurikulumu i metodiku nastave, koja bi se trebala usredotočiti na aktivnosti u zajednici i sudjelovanje u njima (Garcia Perez, 2009).

Učenje bi trebalo biti globalan proces u kojemu pojedinci stvaraju značenje iz realnosti (Zabala, 1989). Stoga je neophodno nadići kategoriziranje znanja kako bi mu se pristupilo na sustavan način (Messa i sur., 2003) i kako bi bilo moguće razmatrati ekološko obrazovanje u skladu s potrebama aktualnih društvenih i ekoloških problema.

Ovo istraživanje dublje se bavi pitanjem uspostavljanju li učenici koji sudjeluju u programu Eko-škole vezu s okolišem koristeći se izvorima koje im taj program pruža na način da se škola prikazuje kao okolina u kojoj učenje putem „uranjanja“ promiče usvajanje vještina, pruža usklađene poticaje i pravu motivaciju (Tonucci, 1993; 2009). Takvo je uranjanje odlučujući faktor u promicanju poštivanja okoliša i obveza prema njemu.

Ovaj rad temelji se na različitim studijama o doprinosu ekološkog obrazovanja obrazovanju za planetarno građanstvo (Bianchini i Sarti da Silva, 2012; Moreno-Fernández i Bianchini, 2014; Moreno-Crespo i Moreno-Fernández, 2015; Novo i Murga, 2010). Točnije, on se temelji na ideji stvaranja vizije koja integrira svjetske probleme u lokalno-globalnu interakciju. To je perspektiva iz koje je, kako mi smatramo, neophodno pristupiti ekološkim problemima.

Program Eko-škole: zaštita okoliša i građanstvo u školama

Najbolji način za približavanje ekološkog obrazovanja školskim centrima jest sudjelovanje i obveza cijele obrazovne zajednice koja ga mora povezati s ekološkim problemima (Martin-Bermúdez i López-Noguero, 2013). Poznato je sve više i više iskustava iz ekološkog obrazovanja koja se provode u praksi u nacionalnim i međunarodnim obrazovnim institucijama. Ti komplementarni programi ekološkog obrazovanja, obrazovanja za građanstvo i drugi srodni predmeti potiču kod učenika građansko sudjelovanje (Moreno-Fernández i Garcia Pérez, 2013). U isto vrijeme, „zeleni kurikulum“ znači da su takvi obrazovni centri stekli kompetencije na stupnju globalnog razmišljanja i promicanja odgovornosti, angažiranosti i djelovanja obrazovne zajednice u smjeru razvoja nekoliko obilježja ekološkog identiteta (Geli i sur., 2006).

Primjer je Eko-škola, inicijativa međunarodnog karaktera, čija zajednička metodologija ima za cilj kod učenika promicati stavove, vještine, angažiranost i odgovornost za okoliš i njegove probleme. Biti promotor ideja čiji je cilj olakšati sudjelovanje građana u održivom razvoju grada prekretnica je i promicanje ekološkog obrazovanja u školama i zajednici (Martin-Bermúdez i López-Noguero, 2013).

U Španjolskoj trenutno postoji 450 Eko-škola, a na međunarodnoj razini postoji 38000 centara u 49 država. U Španjolskoj su se takve škole razvile u partnerstvu sa španjolskom Udrugom za ekološko obrazovanje i potrošače (ADEAC), u koordinaciji Zaklade za ekološko obrazovanje (FEE), a ciljne su im skupine rani, osnovnoškolski

i srednjoškolski stupanj obrazovanja, uz angažman lokalne zajednice i promicanje razvoja zajednice. Sudjelovanje u takvom obliku obrazovanja uključuje niz koraka koji su prikazani u tablici 1.

Tablica 1

Faze obrazovnog programa Eko-škole. (Izvor: Udruga za ekološko obrazovanje i potrošače (ADEAC))

Ekološki odbor	Ovaj Ekološki odbor čine predstavnici obrazovne zajednice, a bira se autonomno i na demokratski način.
Ekološka revizija	Ekološka revizija procjenjuje potrebe i ekološke prioritete Centra i njegove okoline kako bi ih uključila u razvoj budućih akcijskih planova.
Aksijski plan	Aksijski plan priprema se na godišnjoj razini, a za njega je zadužen Ekološki odbor. U njemu se navode neke osnovne teme (voda, otpad, energija, djelovanje na okoliš) povezane sa školskim kurikulumom. Tada se određuju ishodi, ciljevi i datumi za pojedine inicijative koje su usredotočene na poboljšanje rada Centra i okoliša.
Kodeks ponašanja	Kodeks ponašanja određuje postupanja i ponašanja koje obrazovna zajednica poštuje. Odnosi se na ciljeve akcijskog plana.
Kontrola i evaluacija	Procjenjuje se stupanj ostvarenosti akcijskog plana, a procjenu obavlja povjerenstvo koje određuju ADEAC i predstavnici lokalnih i regionalnih vlasti koji sudjeluju u programu.
Informacija i komunikacija	Određuje se politika komuniciranja i prenošenja rezultata od škole prema lokalnoj zajednici općenito.
Priznanje Zelena zastava	To je priznanje koje se daje centrima za koje je procijenjeno da razvijaju ekološku politiku na zadovoljavajuć način.

Istraživanje tih obrazovnih iskustava ima za cilj ispitati postoji li usklađena integracija ekološkog obrazovanja u škole. Dublja analiza tih aspekata omogućava određivanje ograničenja i potencijala takvih prijedloga.

Ciljevi i metodologija istraživanja

Ovo je istraživanje proizašlo iz želje za spoznajama o tome razumiju li učenici ekološke probleme ne samo iz lokalne nego i iz globalne ili „glokalne“ perspektive. Neophodno je analizirati taj aspekt kako bi se utvrdilo je li navedena činjenica od ključnog značenja kada se radi o djelovanju na okoliš (općenito) na angažiran i odgovoran način. Prema našem mišljenju, ne postoji velik broj studija i istraživanja u kontekstu programa Eko-škole (Bianchini i Sarti da Silva, 2012; Conde, 2004; López i Gutiérrez, 2013; Martín-Bermúdez i López-Noguero, 2013; Moreno-Fernández, 2013; Moreno-Fernández i García Pérez, 2013), pa je stoga daljnji rad u tom smjeru prikazan kao nešto od temeljne važnosti za područje integracije ekološkog obrazovanja u škole.

Za početak, oslanjamo se na studije koje su provedene kako bi se došlo do spoznaja o mišljenju učenika (Delicacies, Alejo i Slisko, 2011; Mora i Herrera, 2009; Sánchez, 2001). U tom smislu istraživanje se usredotočuje na istraživanje predodžbi koje su učenici stekli sudjelovanjem u obrazovnom programu Eko-škole, kako bi se provjerilo preferiraju li oni lokalno-globalnu viziju problema u svijetu i kako to utječe na njihovo

postupanje i odgovornost prema okolišu. Taj obrazovni program koristi se holističkim i aktivnim pristupom koji uključuje učenike, nastavnike i cijelu obrazovnu i lokalnu zajednicu (Moreno-Fernández, 2013).

Opći cilj istraživanja jest provjeriti promiče li obrazovni program Eko-škole kod osnovnoškolaca lokalno-globalnu viziju društvenih i ekoloških problema. Tim ciljem želi se utvrditi utječe li takva vizija na angažiranost učenika prema njihovoj okolini i okolišu. To ujedno predstavlja i budući smjer istraživanja, kako bi se dobio uvid u podatak o tome u kolikoj je mjeri okoliš važna tema u nastavnom procesu.

K tomu, određeni su i specifični ciljevi koji su povezani s nekim aspektima uključenima u program, kao što su voda, energija, otpad i utjecaj na okoliš. Specifični ciljevi ovog istraživanja su:

- Provjeriti znaju li učenici kakva je veza između problema s vodom na svjetskoj razini i načina na koji se mi tim resursom koristimo na lokalnoj razini.
- Analizirati jesu li učenici sposobni uočiti veze između potrošnje energije i ekoloških problema.
- Utvrditi u kojoj mjeri učenici razumiju i postupaju u vezi s problemima koje uzrokuje otpad.
- Provjeriti koje aktivnosti i radnje učenici poznaju i provode kako bi očuvali okoliš i poboljšali kvalitetu života.
- Saznati promiče li taj obrazovni program stvaranje angažiranijeg građanstva.

Koristeći se tim pristupima, istraživanje se usredotočilo na razumijevanje kompleksnosti različitih društvenih i ekoloških problema u njihovoj lokalno-globalnoj dimenziji.

Metodologija

U istraživanju su sudjelovala 73 učenika osnovnih škola (u dobi od 10 do 12 godina) iz dviju državnih škola smještenih u dvije provincije Andaluzije (Sevilla i Huelva) u južnoj Španjolskoj. Te škole uključene su u obrazovni program Eko-škole. Kako bi se zaštitila privatnost podataka o učenicima koji su sudjelovali u istraživanju, izvorni podaci o školama dostupni su samo autorima ovog rada. Uzorak koji se koristio u istraživanju odgovara neprobabilističkoj brzini uzorkovanja za kauzalni pristup (Aliaga, 2000). Selekcija škola temeljila se na sljedećim kriterijima: imale su lagan pristup, bile su voljne sudjelovati, istraživačima su omogućile prisustvo nastavi i olakšale ispunjavanje radnih zadataka. Za prikupljanje podataka koristili su se upitnici, intervjui i fokus grupe.

Upitnik se sastojao od osam pitanja otvorenog tipa koja su pokazala predodžbe učenika o ekološkom obrazovanju, angažiranosti građana i vezi između lokalnog i globalnog. Dakle, teme o kojima su učenici izrazili mišljenje bile su sljedeće:

1. Obrazovni program koji pohađate bitan je za vas i vašu školu. a) Recite nam kakav je taj program bio prošle godine; b) Što mislite da ste naučili u sklopu

tog programa?; c) Što ste naučili u sklopu programa a da vam je još korisno u svakodnevnom životu?

2. Nestašica vode u Andaluziji je, prvi put u posljednjih deset godina jedan od najvažnijih ekoloških problema. Kako bi riješili taj problem, u mnogim selima su se složili i poduzeli mjere poput smanjivanja opskrbe vodom između 8 sati navečer i 8 sati ujutro. Međutim, u ostalim selima stanovnici su odbili poduzeti takvu mjeru jer nisu bili zabrinuti zbog problema s vodom. Ne možemo zaboraviti da je voda osnovni resurs o kojem ovise ne samo ljudi, nego i biljke i životinje. Što mislite o tome kako nestašica vode može utjecati na mjesto u kojem živite?
3. Smatrate li da bi problem nestašice vode mogao utjecati samo na vašu lokalnu zajednicu ili je to problem koji utječe na cijelu Zemlju? Zašto?
4. Kako biste povezali nestašicu vode u mjestu u kojem živite s nestašicom vode na Zemlji?
5. Što biste predložili kao rješenje problema nestašice vode u svom gradu?
6. A što biste predložili kao rješenje problema nestašice vode na cijeloj Zemlji?
7. Što mislite, čija su odgovornost ekološki problemi, poput trošenja vode? Kako bi vlade trebale reagirati? Kako kompanije upravljaju trošenjem vode? Je li to odgovornost svih ljudi? Zašto?
8. Recite nam u kojim aktivnostima sudjelujete kako biste pomogli u rješavanju problema u mjestu u kojem živite (u svom gradu, susjedstvu...).

Kako bi se upitnici popunili, provedeni su intervjui i fokus grupe (Barbour, 2013; Kvale, 2011), jer smatramo da su oni neophodni kada se pokušavaju razumjeti značenja glavnih aktivnosti i društvene dinamike, čiji su dio.

Ti nam instrumenti nam omogućavaju dublji uvid u određene predodžbe i iskustva koja su učenici imali sa svojim susjedima. U tom smislu uzeli smo u razmatranje tekstove koji su izrađeni na temelju intervjua i fokus grupa i iz kojih smo mogli razumjeti društvene i ekološke probleme i njihov utjecaj na lokalnoj i globalnoj razini: kao skupinu konkretnih tema na određenom mjestu u određenom vremenu. Priče nastale iz tih tekstova javljaju se kroz interakciju istraživača i sudionika te predstavljaju oblik razmišljanja i izražavanja određenog načina na koji gledamo na svijet.

Sve intervjue i fokus grupe proveli smo prema unaprijed određenom scenariju, tako da možemo reći da su one imale polustrukturiran karakter. Upotreba višestrukih instrumenata omogućila je velik raspon podataka i njihovu triangulaciju, dajući im veću valjanost i pouzdanost.

Cilj intervjua bio je prikupiti informacije o učeničkim varijablama koje sačinjavaju kategorije istraživanja. Stoga su postavljena pitanja bila:

1. Je li ovo prva godina da sudjelujete u Eko-školi?
2. Jeste li ikada prije sudjelovali u nekom programu?
3. Što vas je navelo na sudjelovanje u programu?
4. Koju funkciju imate u osnivanju i razvoju ovog programa?

5. Koje aktivnosti odrađujete?
6. Jeste li uključeni u sve aktivnosti koje se provode? Recite mi kako.
7. Smatrate li da više učite kada ste aktivno uključeni?
8. Smatrate li da vas ovakva angažiranost čini aktivnijim i odgovornijim građaninom?
9. Što mislite, kako je ekološko obrazovanje prihvaćeno tijekom programa? A građanski odgoj?
10. Smatrate li da oni imaju veze s problematičnim društvenim i ekološkim temama povezanim s konkretnim potrebama susjedstva u kojem živite?
11. Smatrate li da su aktualni društveni i ekološki problemi (klimatske promjene, dezertifikacija, nestanak vrsta, siromaštvo, pretjerana potrošnja) ujedno i problemi koji utječu i na vas?
12. Smatrate li se dijelom svjetske zajednice i djelujete li na lokalnoj razini kada se radi o društvenim i ekološkim problemima?
13. Je li vam teško povezati lokalne probleme s globalnima?

Što se tiče fokus grupa, rad s njima uključivao je neke varijante rada „Solidarnost, građanska dužnost“, koji je također uključen u didaktičke materijale koje su pripremili Drug Addiction Foundation (DAF) i The Benefit Society Box Madrid (2007): *Građani: razvoj prosocijalnih vrijednosti*. Pitanja koja su vodila rad fokus grupa bila su:

Kakve se elementarne nepogode uglavnom događaju u svijetu?

Smatrate li da se takve elementarne nepogode događaju zbog procesa koji se odvijaju u prirodi ili zbog ljudske aktivnosti?

Biste li povezali te elementarne nepogode s ekološkim ili društvenim problemima?

Kada se elementarna nepogoda dogodi, ljudi obično zauzimaju jedan od ova tri stava: nonšalantnost, djelovanje ili solidarnost. Koji vam se od ta tri stava čini najučinkovitijim? Koji vam se od ta tri stava čini najčešćim?

Smatrate li da je pomaganje ljudima u područjima pogođenim elementarnim nepogodama dužnost međunarodne zajednice ili države i mjesta u kojem se ona dogodila, ili je to dužnost svih građana neovisno o mjestu u kojem žive?

Svi prikupljeni podaci raspodijeljeni su u različite tematske cjeline po kategorijama istraživanja: podaci koji se odnose na sudionike, razmišljanja o aktualnim društvenim i ekološkim problemima (ekološko obrazovanje), njihov položaj kao građana (lokalno građanstvo/svijet) i njihovo sudjelovanje u aktivnostima vezanim uz poboljšanje uvjeta u neposrednoj okolini. Kategorije su nakon toga podijeljene u tri potkategorije, što je kao rezultat imalo skalu napretka od jednostavnog znanja (sinkretički pogled na svijet) do približno željenog znanja (pristup sistemskoj viziji svijeta) (pogledati Tablicu 2.).

Analiza podataka provedena je u procesu tematskog kodiranja (Angrosino, 2012; Flick, 2009) primijenjenog na transkripte koji su dobiveni nakon provedbe metoda prikupljanja podataka. Podaci su obrađeni s pomoću Atlas.ti (verzija 6.2) računalnog programa za kvalitativnu analizu.

Tablica 2

Kategorije i potkategorije analize istraživanja

	Potkategorije analize		
	Sinkretički pogled na svijet	ANALITIČKI POGLED NA SVIJET	SISTEMSKI POGLED NA SVIJET
Kategorija 1: Postojanje i rješavanje društvenih i ekoloških problema	Prepoznavanje ekoloških referenci u određenim dimenzijama.	Prepoznavanje ekoloških referenci u dimenzijama koje se odnose na probleme povezivanja.	Izlaganje s ciljem rješavanja društvenih i ekoloških problema.
Kategorija 2: Postojanje i rješavanje problema građana	Prepoznavanje ekoloških referenci u određenim dimenzijama.	Prepoznavanje referenci u građanskim dimenzijama koje se odnose na probleme povezivanja.	Izlaganje s ciljem rješavanja društvenih problema koji zahtijevaju sudjelovanje građana.
Kategorija 3: Sudjelovanje	Reference na mehanizme građanskog sudjelovanja.	Uvjerenost o postizanju kritičkog građanstva.	Predanost rješavanju društvenih i/ili ekoloških problema.
Kategorija 4: Globalna dimenzija (glokalna veza)	Reference na obrazovanje o planetarnom građanstvu.	Procjena društvenih i ekoloških uvjeta.	Angažman u globalnoj javnoj svijesti (građani svijeta, lokalno-globalna veza).

Rezultati i rasprava

Rezultate smo razvrstali s obzirom na tematsku kategorizaciju, grupirajući izjave prema funkciji njihovih obilježja i sadržaja te prema općim i specifičnim ciljevima koji su postavljeni u istraživanju. Ovim se istraživanjem željelo pokazati promiče li program Eko-škole lokalno-globalnu viziju društvenih i ekoloških problema. Da bismo to postigli, analizirali smo dojmove učenika sudionika u istraživanju o učinku koji lokalni društveni i ekološki problemi imaju na globalnoj razini.

Velika većina sudionika razumije da sve radnje koje proizlaze iz lokalnih problema na neki način utječu na globalne probleme, iako, s druge strane, oko 30 % njih ne prepoznaje, ne zna ili ne razumije tu uzročno-posljedičnu vezu, a malo je njih mišljenja da ti lokalni problemi ne utječu na ostatak planeta. Podaci prikupljeni u istraživanju ukazuju na to da učenici sudionici istraživanja znaju i mogu prepoznati veze između lokalnih događanja i globalnog učinka. Usprkos tomu, rezultati upućuju na nedostatak dubljeg razumijevanja međusobnog djelovanja i procesa koji obuhvaćaju društvene i ekološke probleme.

Oni upućuju i na to da nedovoljna i neadekvatna briga o okolišu (biljke i životinje), prekomjerna potrošnja i stvaranje otpada, trošenje energije, povećan prijevoz, nedostatak recikliranja, ponovne upotrebe ili štednje resursa i lokalno onečišćenje, između ostaloga, izravno utječu na svjetsko onečišćenje („...onečišćenje se širi zrakom i dolazi do ostalih dijelova svijeta...”); uzrokuju porast globalnog zatopljenja i efekta staklenika („...trošimo puno električne energije, a to je povezano s globalnim problemima...”); uzrokuju zdravstvene probleme za stanovnike planeta; uzrokuju

smrt i izumiranje brojnih životinjskih i biljnih vrsta na svijetu; uzrokuju topljenje leda na polovima; smanjuju kvalitetu života i imaju negativan učinak na okoliš općenito.

Između ostalog, učenici su spomenuli da „...kada dođe do onečišćenja, sve je povezano“ ili „Ako dođe do onečišćenja, započinje globalno zatopljenje i efekt staklenika, mnoge biljke ugibaju, mnoge životinje ugibaju, kao i sve što slijedi...“ ili „čak i najmanji gradić koji poštuje planet već nešto čini...“

Kada se uspostavlja ciklusi ili lančane veze između aktivnosti koje sudionici obavljaju na lokalnoj razini i njihova učinka na globalnoj razini, možemo vidjeti da su oni sposobni prepoznati glavne korisne učinke aktivnosti koje odrađuju u sklopu programa Eko-škole. Naglašavaju recikliranje (što znači ponovnu upotrebu), manju potrošnju energije, manje bacanja hrane, smanjenje količine otpada; preporučuju sadenje ili stvaranje vrtova kako bi se izbjeglo onečišćivanje; jedenje zdrave hrane; manju kupovinu robe ili pomaganje planetu putem kisika koji proizvode biljke; štednju resursa, objašnjavajući da manja potrošnja ujedno znači i manje onečišćenje, klimatske promjene, efekt staklenika itd. U isto su vrijeme pravodobno svjesni i posljedica takvih radnji („...mislim da štedimo kako bismo izbjegli veliko onečišćenje, a ako onečišćujemo, također bismo onečišćivali i biljke koje bi tada životinje jele i također uginule, a tada bi i njih netko pojeo i na kraju bi sve životinje i biljke uginule, a i mi bismo umrli, zajedno s njima”).

Rezultati također upućuju i na to da su oni koji su isticali da lokalni problemi nemaju globalni učinak svoja stajališta temeljili na viziji vlastitog grada kao mjesta koje se na pravilan način odnosi prema okolišu koji nije onečišćen i gdje se provode radnje korisne za okoliš.

Veza između globalnih problema i upotrebe prirodnih resursa na lokalnoj razini

Općenito gledajući, učenici koji su sudjelovali u istraživanju razumiju važnost vode kao resursa kada gledamo na njezinu upotrebu u svakodnevnom životu, kao i nekih problema koji se tiču vode na globalnoj razini. Ipak, treba primijetiti da većina učenika ima pogrešne predodžbe o iscrpljivanju vodenih resursa („Neće više biti vode” ili „Bit će potrošena”). Usprkos činjenici da ponekad ne povezuju točno/pravilno uzrok i posljedice upotrebe vode, znaju da su glavni problemi povezani s vodom kao resursom na lokalnoj i globalnoj razini bespotrebno trošenje i bacanje, povećana potreba za vodom, suša, izumiranje vrsta, promjene u temperaturi vode, onečišćenje, ratovi koji se zbog nje vode, loša raspodjela i, kao rezultat, nestašica vode u nekim dijelovima svijeta (pogledati sliku 1.). S obzirom na njezinu važnost kao resursa dnevni zadatak naglašava potrebu za odgovornim iskorištavanjem vode kako bi se zaštitili život i zdravlje i poboljšali uvjeti na planetu, kao što je funkcioniranje prehrambenog lanca ili postojanje brojnih vrsta.

Slika 1

Kada govorimo o energiji, uočeno je da su učenici svjesni uštede energije u svojim pojedinačnim centrima te da provode razne mjere ušteda. Samo neki razumiju da ušteda energije sprečava porast onečišćenja koje izazivaju tvornice i elektrane koje proizvode tu energiju. Osim toga, učenici ukazuju na smanjenje troškova energije kao na radnju kojom se sprečava propadanje okoliša i izbjegava porast globalnog zatopljenja i efekta staklenika i njihovih opasnih posljedica za planet i njegove stanovnike. Također mogu i prepoznati veze između radnji kao što su recikliranje i ponovna upotreba i smanjena upotreba energije. Usporedo s tim ističu svjetlosno onečišćenje kao jedan od problema u urbanim sredinama.

Radnje koje učenici provode kako bi sačuvali svoj okoliš

Predodžbe o tome što je okoliš raznolike su, iako među njima ima podudarnosti. Dio učenika u određenoj mjeri razumije što je okoliš i zašto je njegovo očuvanje od presudne važnosti. Te ideje u izravnoj su vezi s njihovim predodžbama o okolišu. Razumiju da je okoliš sve što okružuje ljudska bića, prirodu, ruralne i urbane sredine i da je on neophodan za život, ljudska bića, biljke i životinje, zdravlje, za disanje, za sprečavanje izumiranja vrsta i da je bitan i kao izvor hrane, između ostalog. Velika većina ispitanika čini se da je svjesna glavnih problema koji utječu na okoliš, uključujući onečišćenje, smrt vrsta, otpad/smeće, buku i vizualno onečišćenje, prijevoz ili izumiranje i nestanak vrsta.

Kada pogledamo predodžbe koje učenici imaju o svojem okolišu, nailazimo na razlike. Ti učenici, čiji je centar smješten u urbanoj sredini, smatraju da njihov okoliš nije dobar, da je uništen, zapušten, onečišćen i da često služi kao odlagalište otpada. Međutim, učenici koji razvijaju svoje obrazovne aktivnosti na selu imaju viziju zelenog, krasnog, prirodnog i čistog okoliša, s mnogo biljaka, u kojem žive mnoga bića i koji je pogodan za razne aktivnosti na otvorenom.

U praksi, zahvaljujući programu Eko-škole, aktivnosti u oba centra brojne su i raznolike. Uključuju recikliranje, redukciju i ponovnu upotrebu (kante za recikliranje, božićni ukrasi, ponovna upotreba cigli i folije, recikliranje čepova s boca itd.), proizvodnju sapuna iz korištenih ulja, izgradnju organskih vrtova, pravljenje komposta, sadenje biljaka i pošumljavanje, poduzimanje mjera štednje električne energije i vode u Centru i manje razbacivanje resursima, stvaranje lika „zelenog osvetnika” ili „zelene patrole”, prestanak uporabe materijala koji onečišćuju okoliš, uzgajanje domaćih životinja, čišćenje i prikupljanje otpada u Centru, izrada recikliranog papira itd.

Problemi povezani s otpadom na „glokalnoj” razini

Kada razmatramo problem otpada, učenici općenito navode da je on jedan od glavnih problema koji utječu na njihov okoliš, a drugi spominju prijevoz, nestajanje vrsta i siromaštvo. U ovom slučaju oni znaju posljedice problema kao što su uništavanje prirode, bolesti, stanje životinjskih i biljnih vrsta i vode, globalno zatopljenje, uništenje

ozonskog omotača, odlagališta smeća i općenito onečišćenje planeta, i sposobni su pružiti specifična rješenja za taj globalni problem. Neka od rješenja koja su učenici predložili jesu recikliranje i razvrstavanje otpada, ponovna upotreba predmeta, smanjena upotreba kontejnera, ograničena potrošnja koja odgovara potrebama, primjena pravila 3R (reduciranje, recikliranje i ponovna (re-) upotreba), smanjena potrošnja i bolja upotreba konzumiranog.

Rezultati upućuju na to da su učenici upoznati s temom otpada, jednom od glavnih tema koje se obrađuju u sklopu programa Eko-škole. Međutim, ponekad ne mogu povezati specifične aktivnosti, poput smanjivanja količine otpada kod kuće, s mogućim rješenjima takvih situacija. Ipak, problem otpad mogu prepoznati kao jedan od glavnih ekoloških problema.

Obrazovanje za sudjelovanje u lokalnoj okolini s globalnom perspektivom

Učenici razumiju važnost sudjelovanja i potrebu sudjelovanja ne samo u specifičnim aktivnostima u sklopu analiziranog programa, nego i u okolini putem najobičnijih radnji. Možemo zaključiti da velika većina njih vjeruje da sudjelovanje u provođenju najjednostavnijih radnji može dovesti do promjene te da stoga imaju u svojim rukama moć putem aktivnosti koje su odradili u programu Eko-škole, a to se može vidjeti i u njihovim prijedlozima za poboljšanje programa: „...Eko-školi više sati, jer nas nastavnici ne puštaju...možda, na primjer, ovog tromjesečja nismo imali nijedan sastanak Eko-škole. A trebali bismo svaki mjesec jer, ne znam, trebao bih barem pomagati u centru ili u selu...” ili „...mnogi ljudi u sredini koji nisu svjesni, trebali bi informirati veći broj učenika (...) a što je sa sastancima s više ljudi, znate što mislim? Bilo bi više ljudi s kojima bismo mogli razgovarati.”

Također, sudjelovanje u programu pomoglo im je da usvoje građanske stavove za koje kažu da im pomažu kako bi cijenili poboljšanja u okolišu: „...svaki put kad bacate smeće, pokušajte ga reciklirati; kada god perem zube zatvorim slavinu; umjesto kupanja tuširam se i trošim manje vode; upalite svjetlo kada je mrak, a ne tijekom dana...” ili „...ono što još uvijek smatram korisnim je da ne mogu ostaviti otvorenu slavinu, kažem svojim roditeljima kada rade nešto neispravno; kada moji prijatelji bacaju smeće po ulici, kažem im da ga bace u otpad...”

Program je pozitivno ocijenjen jer su učenici shvatili da putem njega usvajaju novo znanje koje ih tjera na razmišljanje i koje ih čini boljim građanima, što se odražava u odgovorima poput: „...pokušati dati ono što mogu i činiti prave stvari na ispravan način? Ne činiti ih zbog njih samih i to je to...”; „...istina je da sada više razmišljam o okolišu. Što se prirode tiče, više razmišljam o tome da je ne onečišćujem” ili „Da, jer pomažem planetu...”

Ako ih se izravno upita jesu li čuli za pojam globalnog građanstva, odgovor je negativan, no ako ih pitate smatraju li se dijelom lokalne zajednice, građanima svojeg grada ili građanima svijeta, odgovor se znatno mijenja i u većini slučajeva oni sebe

smatraju dijelom globalne zajednice u kojoj svatko mora dati svoj doprinos. Tako nailazimo na odgovore poput: „Ja, svijet” ili „Smatram se građaninom svijeta”.

Zaključci

Tijekom procjenjivanja stajališta prikupljenih i analiziranih u istraživanju, pokazalo se da učenici koji sudjeluju u programu Eko-škole mogu razumjeti i prepoznati veze i međusobno djelovanje između globalne i lokalne razine kada rade na društvenim i ekološkim problemima u obrazovnom kontekstu. Među vrednovanim aspektima ističemo zabrinutost sudionika za društvene i ekološke probleme na lokalnoj i globalnoj razini i sposobnost prepoznavanja i objašnjavanja uzročno-posljedičnih veza u radnjama koje se događaju u okolišu.

Često se nastavni predmeti povezani s bitnim ekološkim problemima predlažu kao osnovni i jedinstveni, kako navode neki autori poput Tonuccija (1993). Učenici koji su sudjelovali u programu nisu samo svjesni ekoloških problema u svijetu, nego su svjesni i problema s kojima se suočava njihov neposredni okoliš. Trend pokazuje da su aspekti uključeni u taj obrazovni program odabrani na pristran način i da su ponekad ograničeni te da se usredotočuju na „temeljne” probleme, a ne na postavljenu „glokalnu” perspektivu. Kako su naglasili Novo i Murga (2010), očekivanja vezana uz obrazovanje trebala bi se temeljiti na kompleksnom shvaćanju, a lokalna i globalna vizija smatraju se komplementarnima. Promišljanja o besmislenom trošenju vode, štednji resursa i ekološke aktivnosti uglavnom su dosljedna i upućuju na zadovoljavajuću razinu znanja koja su vezana uz tu temu kod većine učenika. Što se tiče ispitivanih aspekata koji nisu izravno uključeni u programe, kao što je lokalna potrošnja, tu učenici pokazuju manju sposobnost prepoznavanja tog problema kao ekološkog.

Što se tiče obrazovnog stupnja s kojim smo radili, uvidjeli smo da osnovnoškolci bolje poznaju lokalne probleme nego globalne, pa su aktivnosti usmjerene na poboljšanje njihove okoline. U tom je stupnju ekološko obrazovanje tijesno povezano s njihovom neposrednom okolinom (López i Gutiérrez, 2013). To na neki način može dovesti do promjene vizije o međusobno povezanom svijetu u kojem postoji neprestana interakcija i preobrazba. Sudionici u istraživanju naznačili su da njihove svakodnevne aktivnosti imaju izravan učinak na neposredni okoliš te da, iako znaju za moguće lokalne učinke diljem svijeta, bili oni kratkoročni ili dugoročni, ne znaju kako ih artikulirati i za njih pronaći rješenja.

Uz pomoć prikupljenih podataka možemo zaključiti da program Eko-škole u određenoj mjeri potiče lokalno-globalnu viziju društvenih i ekoloških problema, ali postoje slabosti u načinu na koji učenici shvaćaju kako su ti problemi povezani. Ako se kurikulum želi učiniti zelenim, potrebni su novi oblici rada i razumijevanja društvenih i ekoloških aktivnosti u školi, prilagođeni aktualnoj stvarnosti, pa se u tom smislu ispunjavanje tih ciljeva nameće kao prioritet. Ova razmatranja mogu biti korisna kada se analizira učinkovitost ekoloških programa koji su integrirani u školske kurikule.

Bilo bi važno za učenike kada bi, koristeći se vlastitim iskustvima, mogli internalizirati ono što su naučili i to znanje dobrovoljno i s namjerom provesti u praksu. Tako bi mogli, između ostalog, dobiti obrazovanje obogaćeno vrijednostima poštovanja, suradnje i predanosti. Obrazovanje ekološki osviještenih građana zadatak je koji je daleko od laganog, pa je stoga neophodno poraditi na njegovim ključnim aspektima iz perspektive koju predlažemo u prikazanom istraživanju.